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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,558	06/17/2005	Hiromichi Mizuno	59511.00003	7931
32294 7590 10/31/2007 SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			EXAMINER SAETHER, FLEMMING	
			ART UNIT 3677	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/529,558	MIZUNO ET AL.	
	Examiner	Art Unit	
	Flemming Saether	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 2-5 and 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status of Claims***

Claims 1-11 are pending. Claims 2-5 and 9-11 are withdrawn. A complete reply to this final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Specification***

The disclosure is objected to because of the following informalities: the specification may not refer to the claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The amendment to claim 1 renders the claim indefinite by introducing "a stem face" because it is unclear the difference between the "notch face" and "stem face". Both the claimed "notch face" and "stem face" appears to be referring to the same feature and there is nothing to differentiate the two.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno et al. (US-2003/0185649 A1) in view of Walther et al. (US 6,152,666).

Mizuno discloses a teaching a tapping screw (1) having a head portion (4), tip portion, and shaft portion having a columnar portion (5) and reduced diameter truncated cone portion (9), said shaft portion having a spiral screw thread, wherein plural notches (12) are formed in the circumferential direction and are formed by rolling (product by process limitation, see figure 9), each notch including a rising wall (14), a notch face (15), and a corner portion (12a), each notch portion being shallow so as to have a core diameter larger than the core diameter of the screw thread, the screw having a stem face (understood to be the outer crest of thread), the corner portion (12a) is in its broadest sense, formed at the "diametrical outside" end of the rising wall (14), since it is located on a "diameter" of the screw/rising wall, and since it is located on the "outside" of the screw/rising wall, and since the corner portion (12a) is located on and "end" of the rising wall (14). As it is understood, Mizuno et al. teaches the notch face having a stem face (15) in a position moved a predetermined angle from the corner portion and which is moved radially inward as it proceeds in the reverse screw in direction, and as it is

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understood, the thread is "shaved" at the top (understood to be a flat crest). As claim 8 is understood, the notch portions are in the area between the columnar portion (5) and the reduced diameter truncated cone portion (9) of the shaft portion. Mizuno does not disclose the rising wall to be perpendicular to the screw in direction. Walther discloses a screw having a rising wall (27, 29 in Figs. 4 and 5) perpendicular to the screw in direction. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the rising wall of Mizuno perpendicular to the screw in direction as disclosed in Walther because Mizuno leaves open that the wall may be at other angles and Walther teaches that the perpendicular to the screw in direction is one of a limited group of angles.

### ***Response to Remarks***

Applicant basically argues the claims patentable over Mizuno for two reasons: first, Mizuno does not disclose a rising wall perpendicular to the screw in direction and second; Mizuno does not disclose the stem face as claimed.

In response to the first argument, that Mizuno does not disclose a rising wall perpendicular to the screw in direction, the reference to Walther has been applied for its showing of a rising wall perpendicular to the screw in direction as discussed in the above rejection.

In response to the second argument that Mizuno does not disclosed the stem face as claimed; the examiner disagrees because the surfaces labeled 15 in Mizuno reads on the stem face in that it is shown to be spaced a distance from the preceding corner, thus forming an angle at the screw axis, and it is shown to sloping inward as it continues in the reverse screw in direction to the following rising wall.

The discussion on how the use of the instant invention differs from Mizuno is accorded no patentable weight since it is not claimed. In that regard, applicant is reminded that, while the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

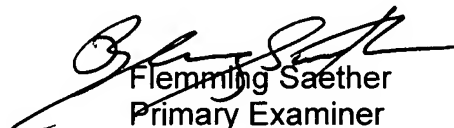
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 571-272-7071. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Flemming Saether  
Primary Examiner  
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